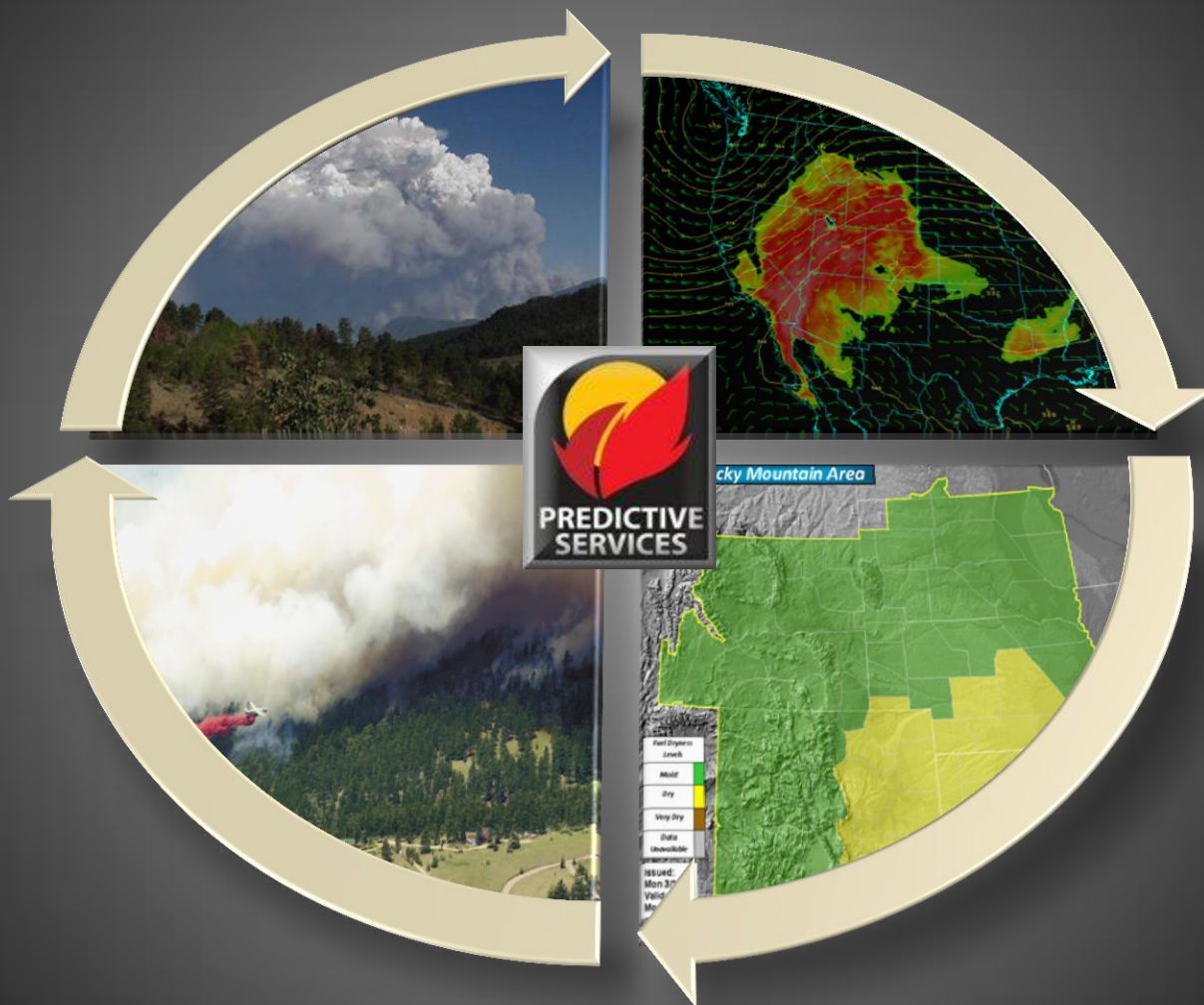




# Predictive Services

RMA Fire Risk Analysis and Outlook- Update March 20, 2012



Tim Mathewson – Fire Meteorologist- RMACC  
Russ Mann- Fire Meteorologist- RMACC  
Marco Perea- Intelligence Coordinator- RMACC

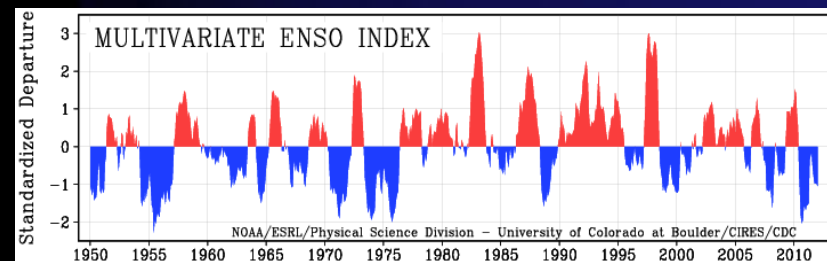
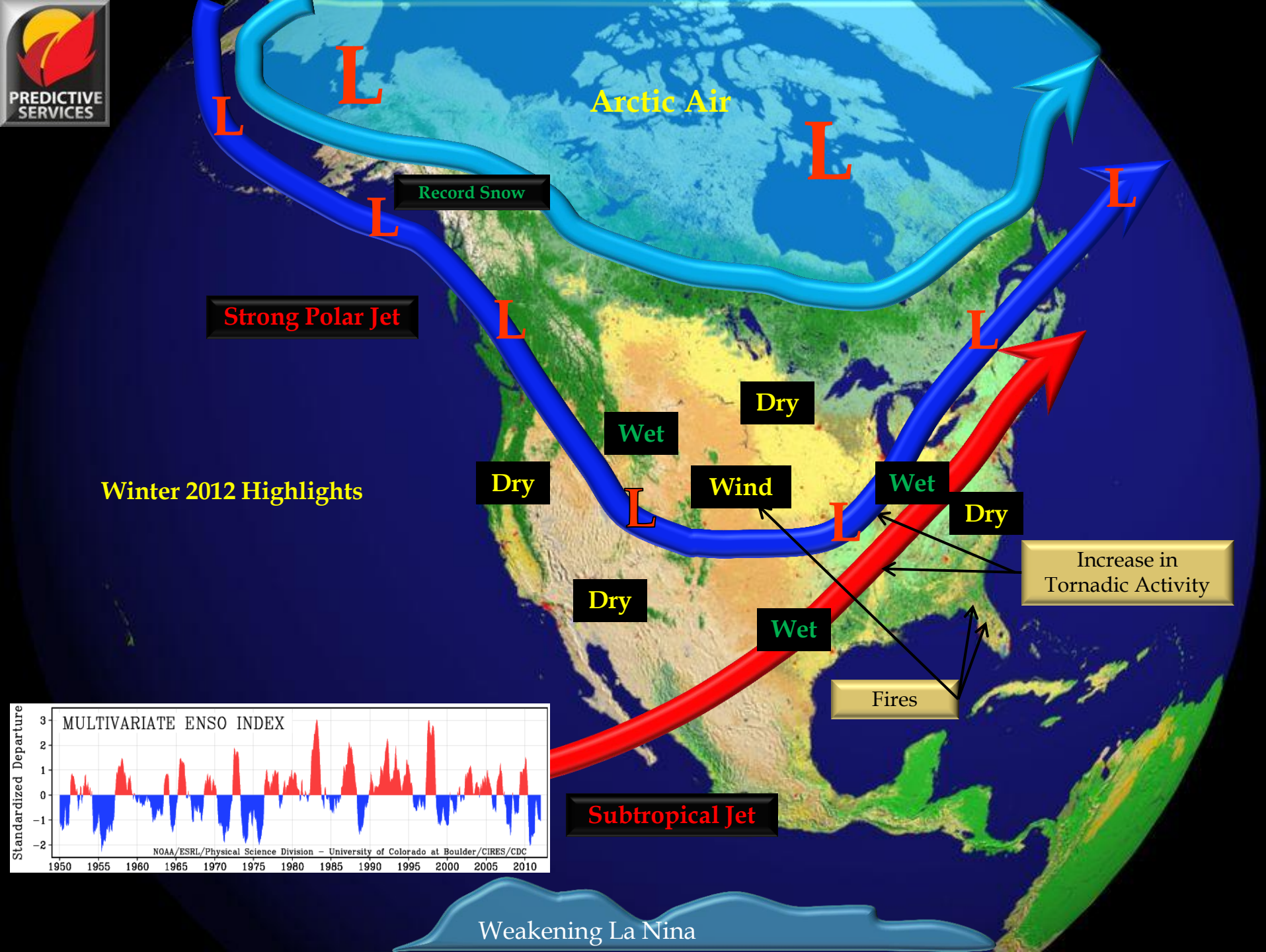


# Seasonal Outlook Update

## Considerations

- ❑ Weather Rewind- National Climate Snapshot-
- ❑ Current ENSO Conditions-
- ❑ Current Snowpack-
- ❑ Precipitation/Temperature Anomalies-
- ❑ Spring Fire Risk Outlook-

## Winter 2012 Highlights



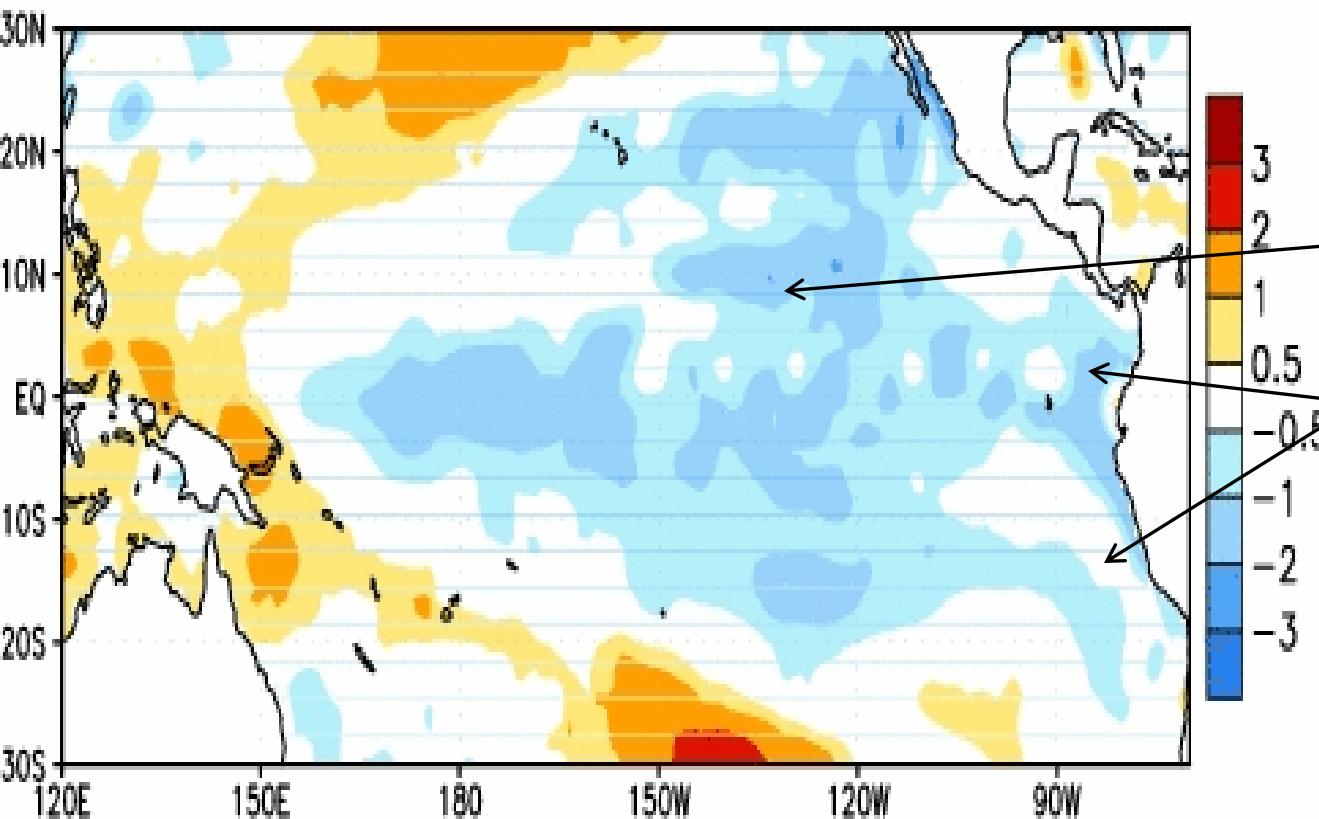


# Seasonal Outlook Update

Tropical Pacific SST Loops (December 28-March 14)

Week centered on 28 DEC 2011

SST Anomalies (°C)



## Tropical Pacific SST Anomalies (°C)

Though weakening, La Nina conditions continue across the Eastern Tropical Pacific

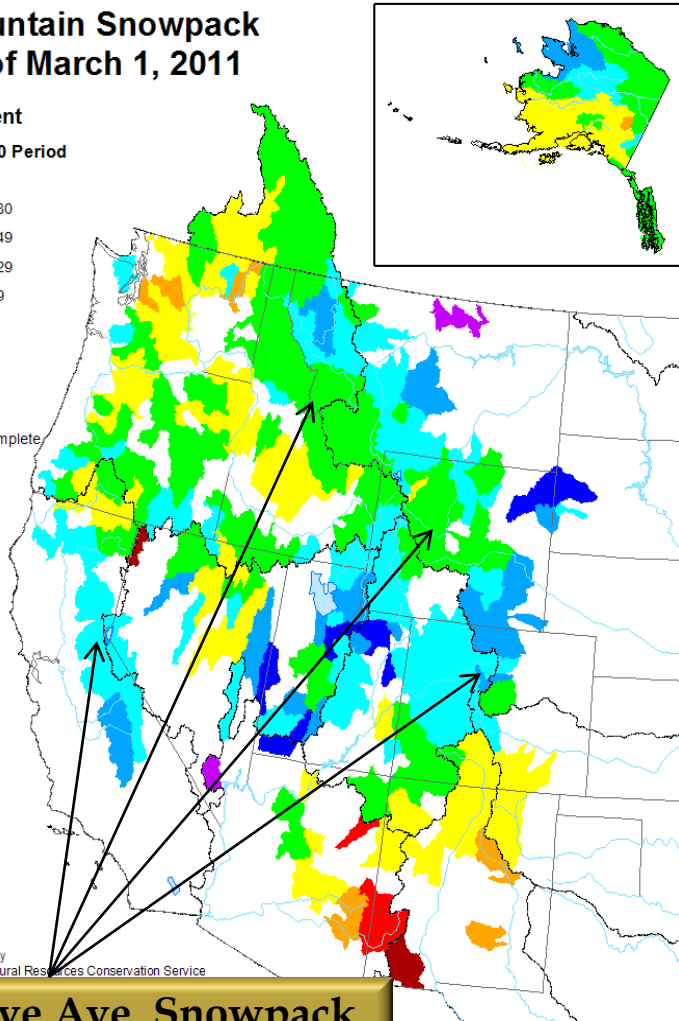
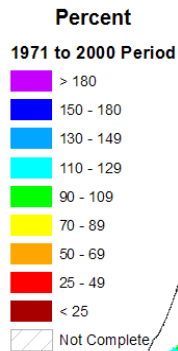
(Neg) SSTs continue across much of the tropical pacific basin

However, (Pos) SSTs have developed along the coast of South America, which may have significant impacts on weather patterns this spring.

# Seasonal Outlook Update

## Western U.S. Snowpack

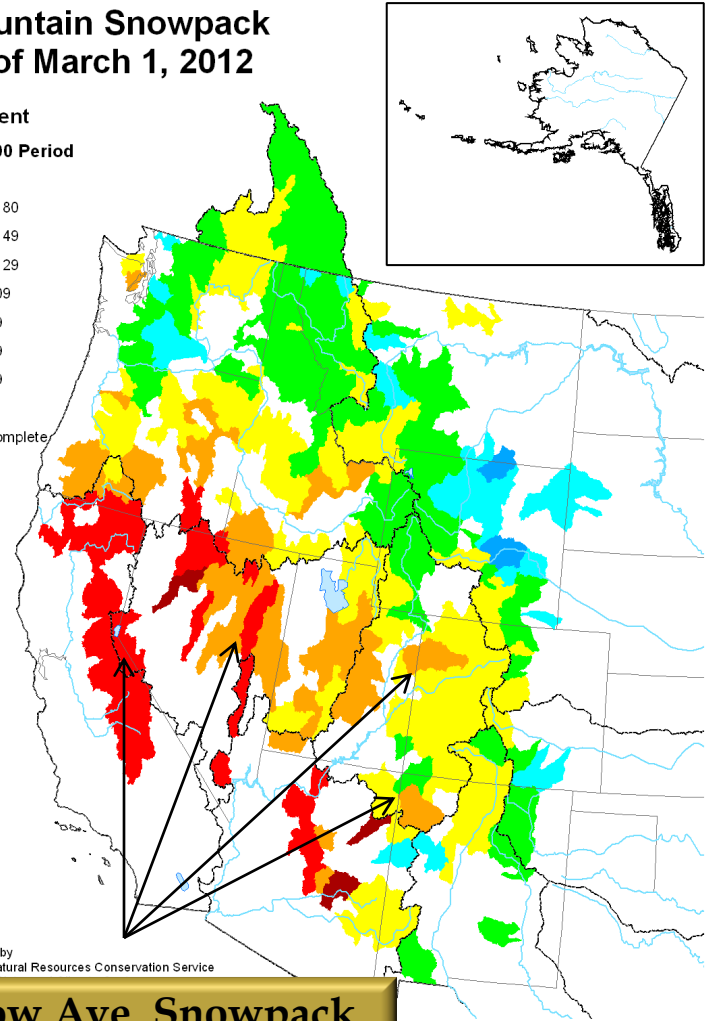
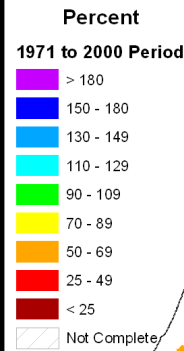
### Mountain Snowpack as of March 1, 2011



Prepared by  
USDA, Natural Resources Conservation Service

**Above Ave. Snowpack**

### Mountain Snowpack as of March 1, 2012



Prepared by  
USDA, Natural Resources Conservation Service

**Below Ave. Snowpack**



# Seasonal Outlook Update

Colorado Snowpack – March 16, 2012

## Colorado Snowpack

Statewide- 74% of Ave.

Yampa/White River- 70% of Ave

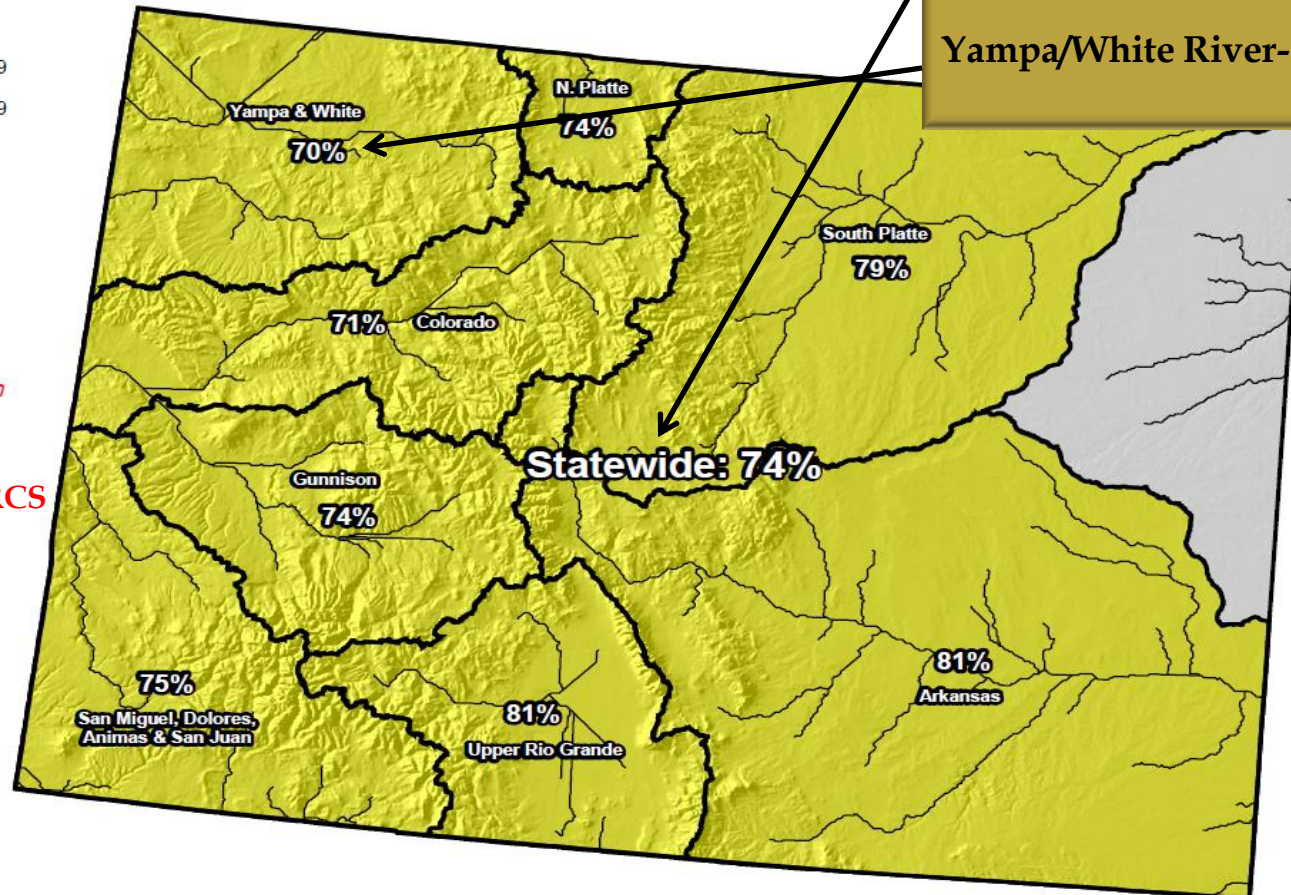
### Colorado SNOTEL Snowpack Update Map

Percent of Average



*Provisional Data  
Subject to Revision*

**Developed by NRCS**



Current as of Mar 16, 2012

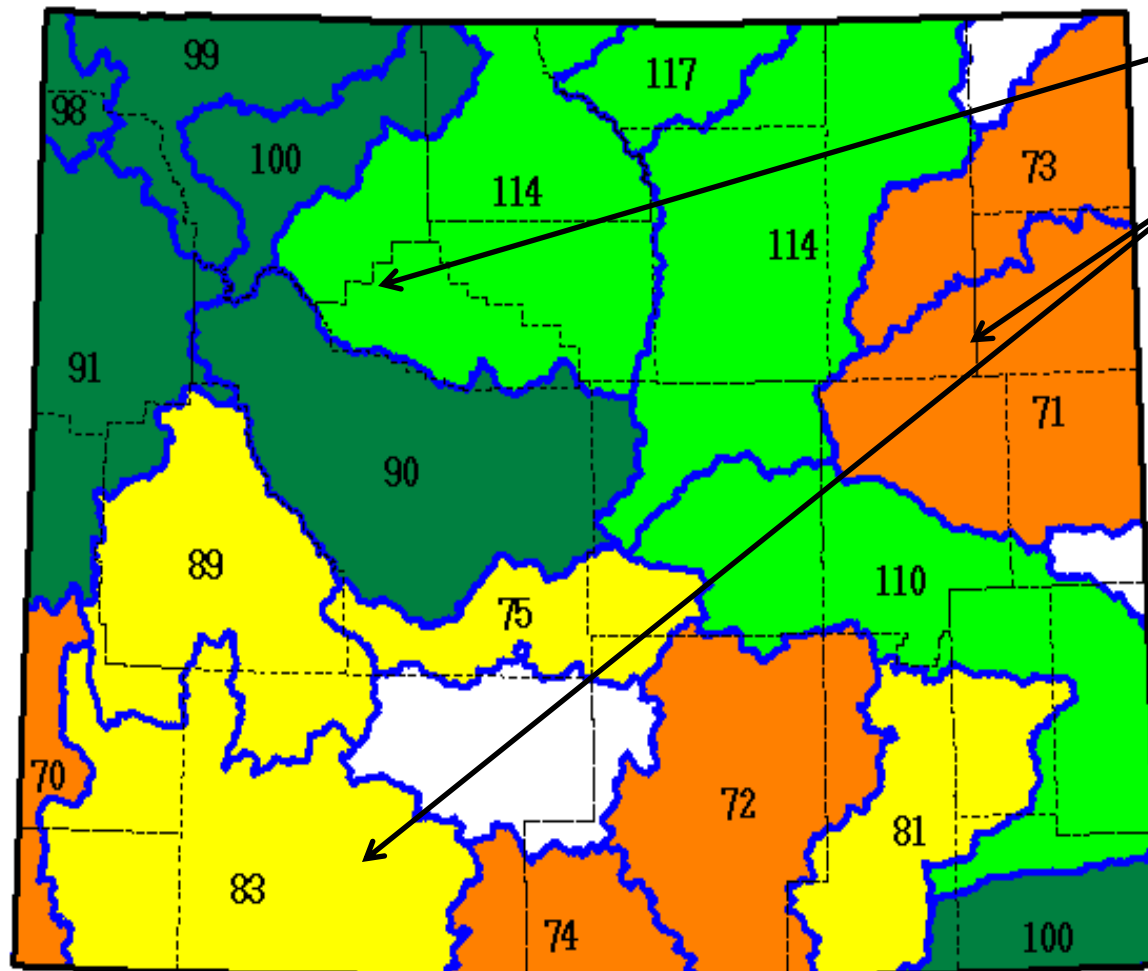
*\*Data may not provide a valid measure of conditions*



# Seasonal Outlook Update

## Wyoming Snowpack – March 19, 2012

SWE % of Average as of Monday, 19 March 2012



### Wyoming Snowpack

100%-115% of Ave northern Wyoming

70-80% of Ave southern and northeastern Wyoming



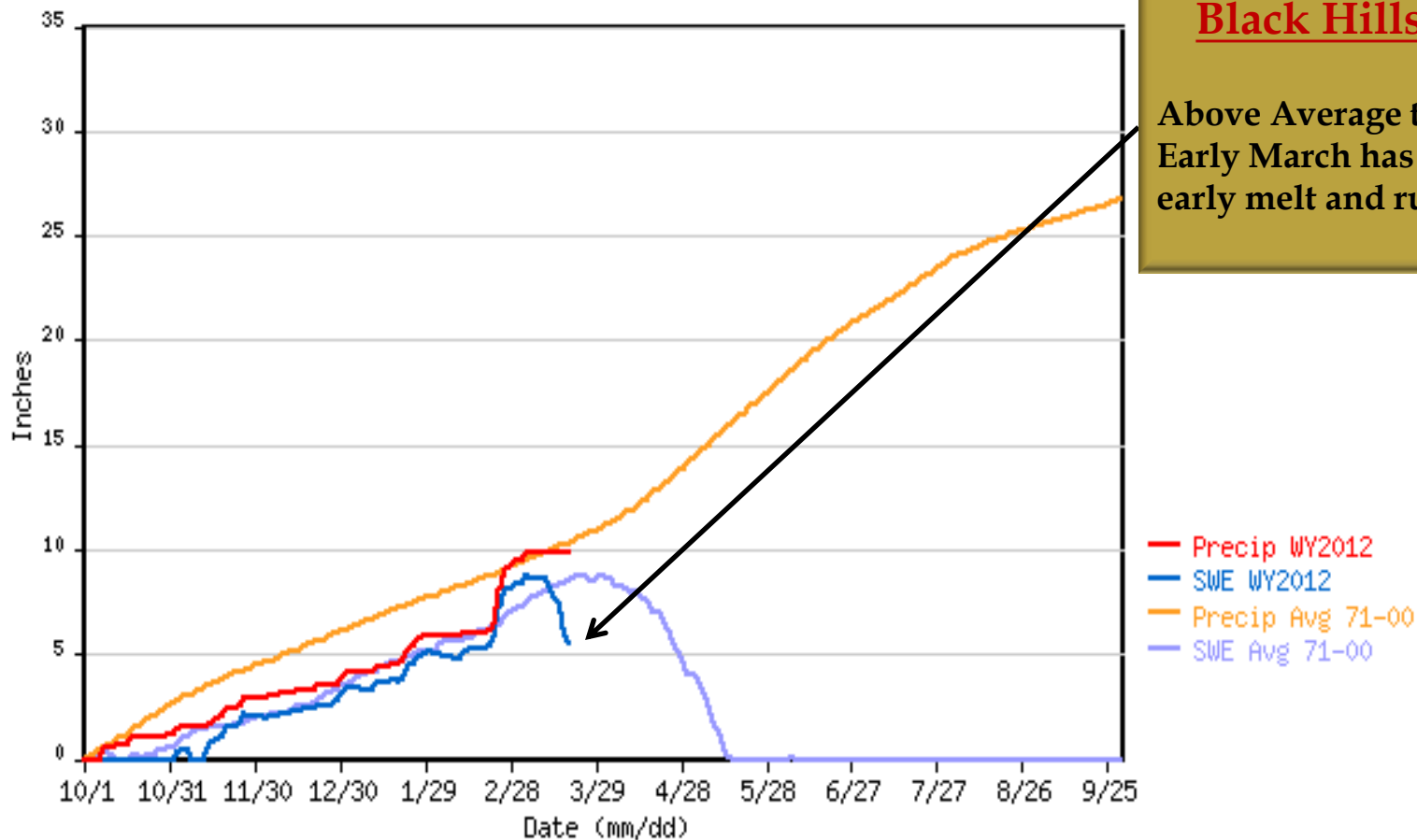


# Seasonal Outlook Update

## Black Hills Snowpack – March 19, 2012

03E03S SNOTEL for Water Year 2012

\*\*\* Provisional Data, Subject to Change \*\*\*



### Black Hills Snowpack

Above Average temperatures in Early March has resulted in an early melt and run-off conditions

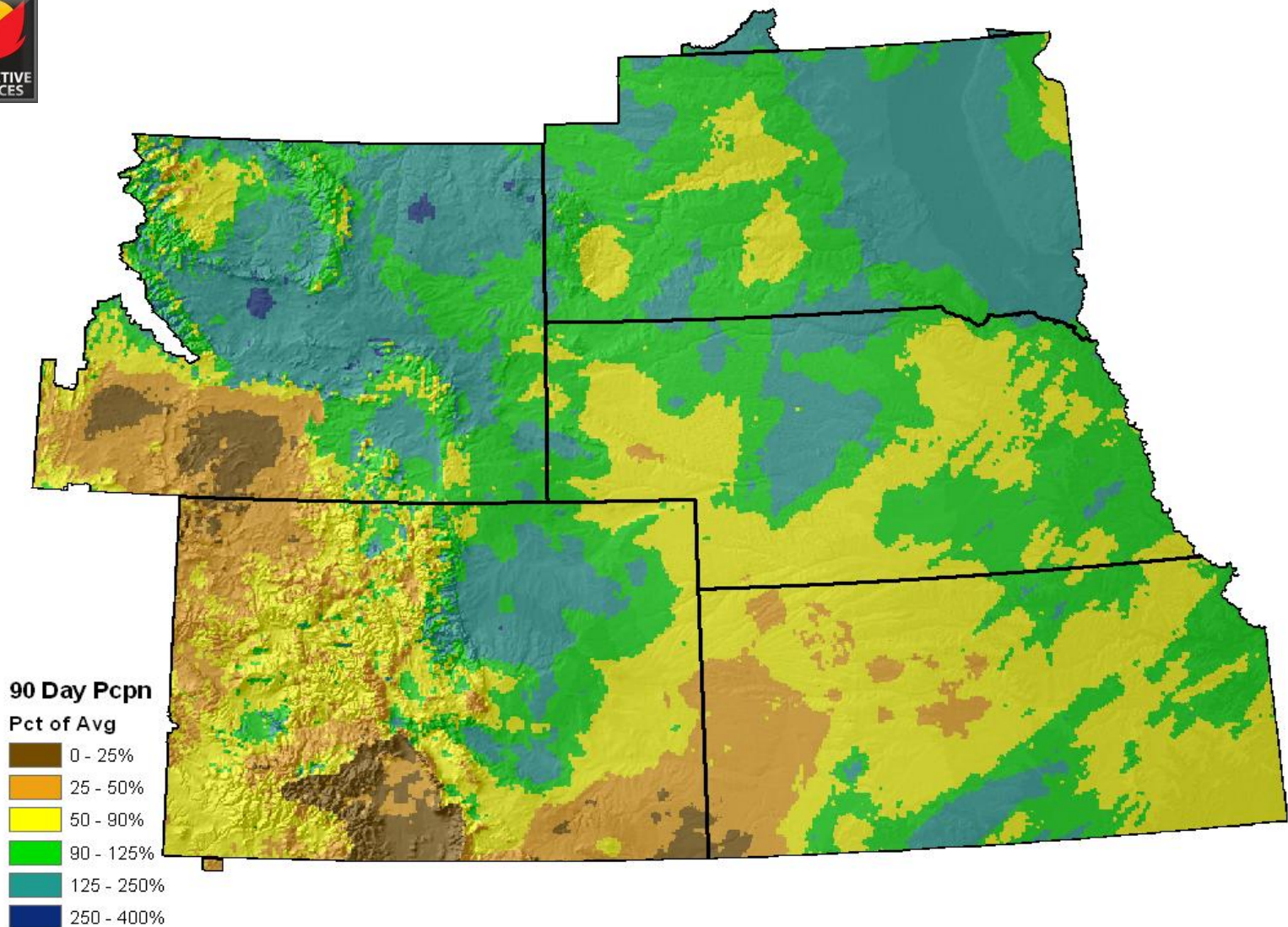
Developed by NRCS





# Seasonal Outlook Update

## RMA 90-Day Percent of Normal Precipitation

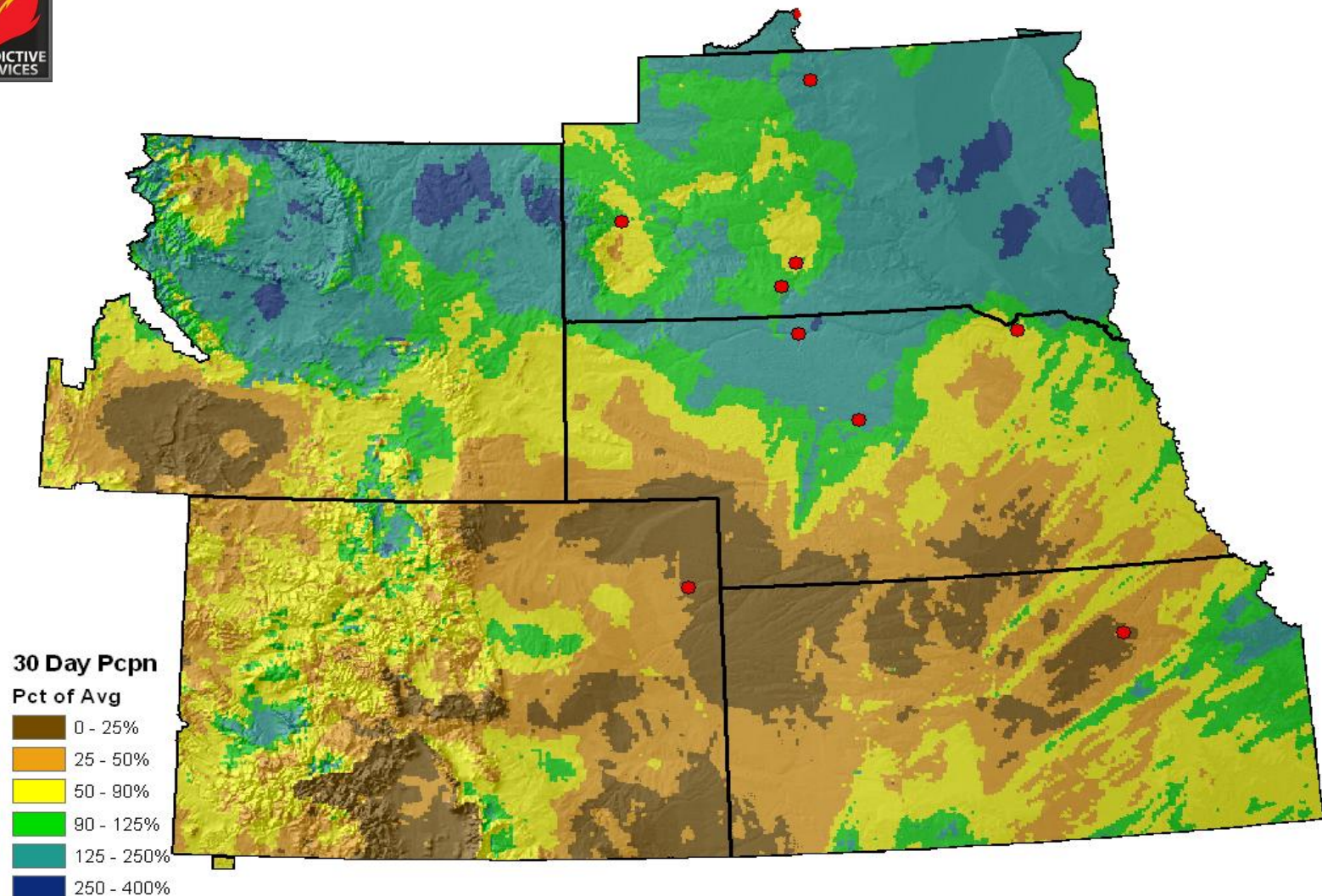






# Seasonal Outlook Update

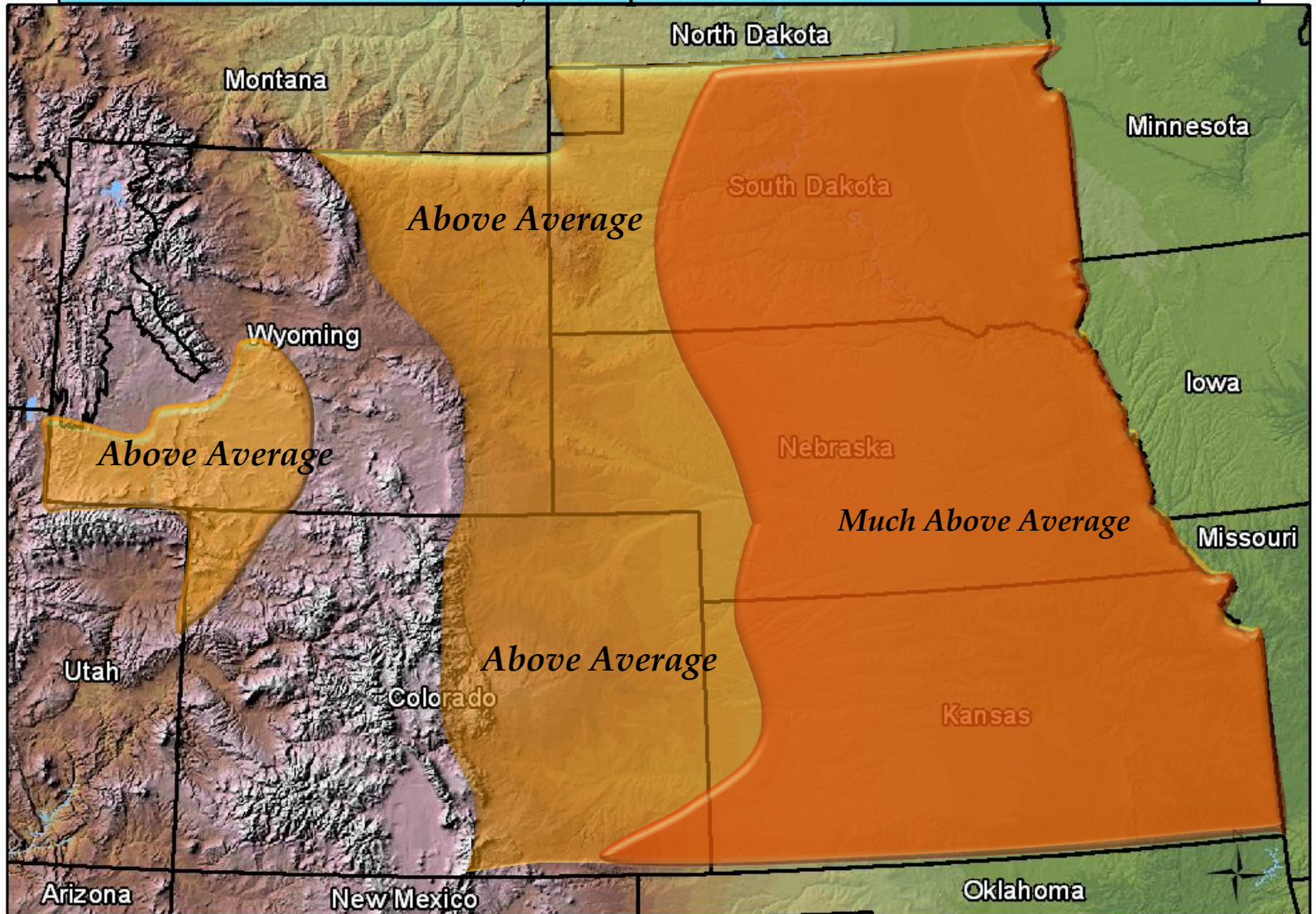
RMA 30-Day Percent of Normal Precipitation





# Seasonal Outlook Update

## RMA 30-Day Temperature Anomalies







# Seasonal Outlook Update

## Regional Drought Monitor

### U.S. Drought Monitor

March 13, 2012

Valid 7 a.m. EST

#### High Plains

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	42.17	57.83	21.23	5.06	1.56	0.04
Last Week (03/06/2012 map)	45.82	54.18	20.38	5.17	1.56	0.04
3 Months Ago (12/13/2011 map)	63.68	36.32	17.90	8.62	2.59	0.27
Start of Calendar Year (12/27/2011 map)	61.66	38.34	18.12	7.22	2.07	0.04
Start of Water Year (09/27/2011 map)	70.09	29.91	17.44	11.97	6.22	2.96
One Year Ago (03/08/2011 map)	64.10	35.90	16.99	7.78	0.00	0.00

#### Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://droughtmonitor.unl.edu>



Released Thursday, March 15, 2012  
Michael Brewer, National Climatic Data Center, NOAA

Drought Development and Intensification

Drought Intensification Compared to a Year Ago

Improvement During Fall and Winter

- Abnormally Dry
- Moderate
- Severe
- Extreme
- Exceptional

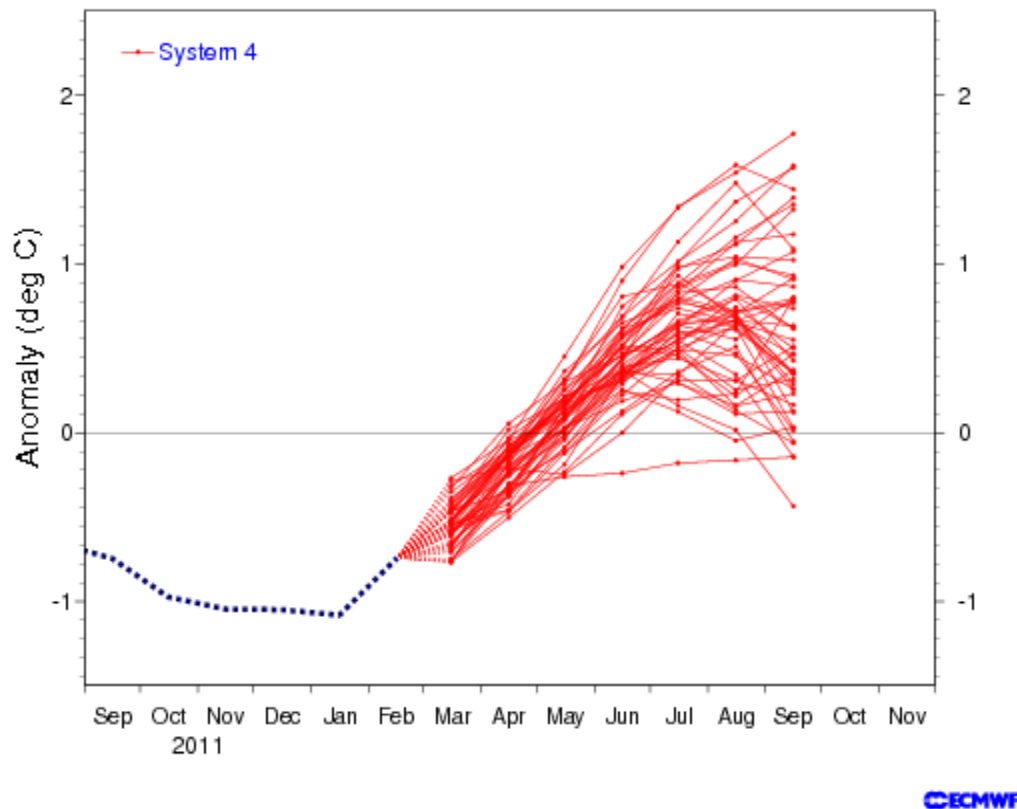
Drought Development and Intensification

# Seasonal Outlook Update

## Tropical Pacific SST Forecasts

NINO3.4 SST anomaly plume  
ECMWF forecast from 1 Mar 2012

Monthly mean anomalies relative to NCEP OIv2 1981-2010 climatology



## ENSO Forecast

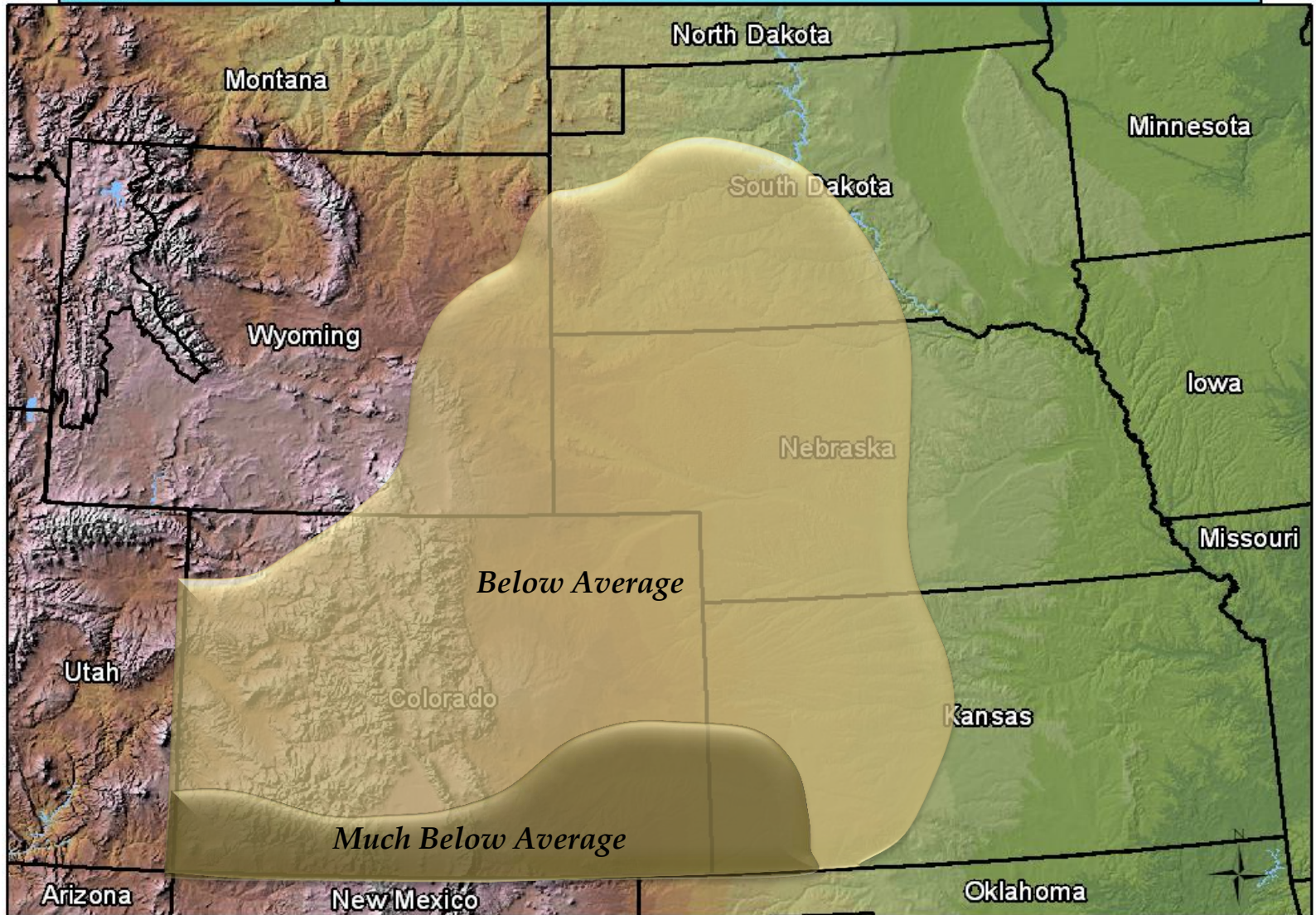
ECMWF Forecast from March 1, 2012

Suggest Neutral Conditions By Mid April

Possible El Nino Conditions Summer 2012

# Seasonal Outlook Update

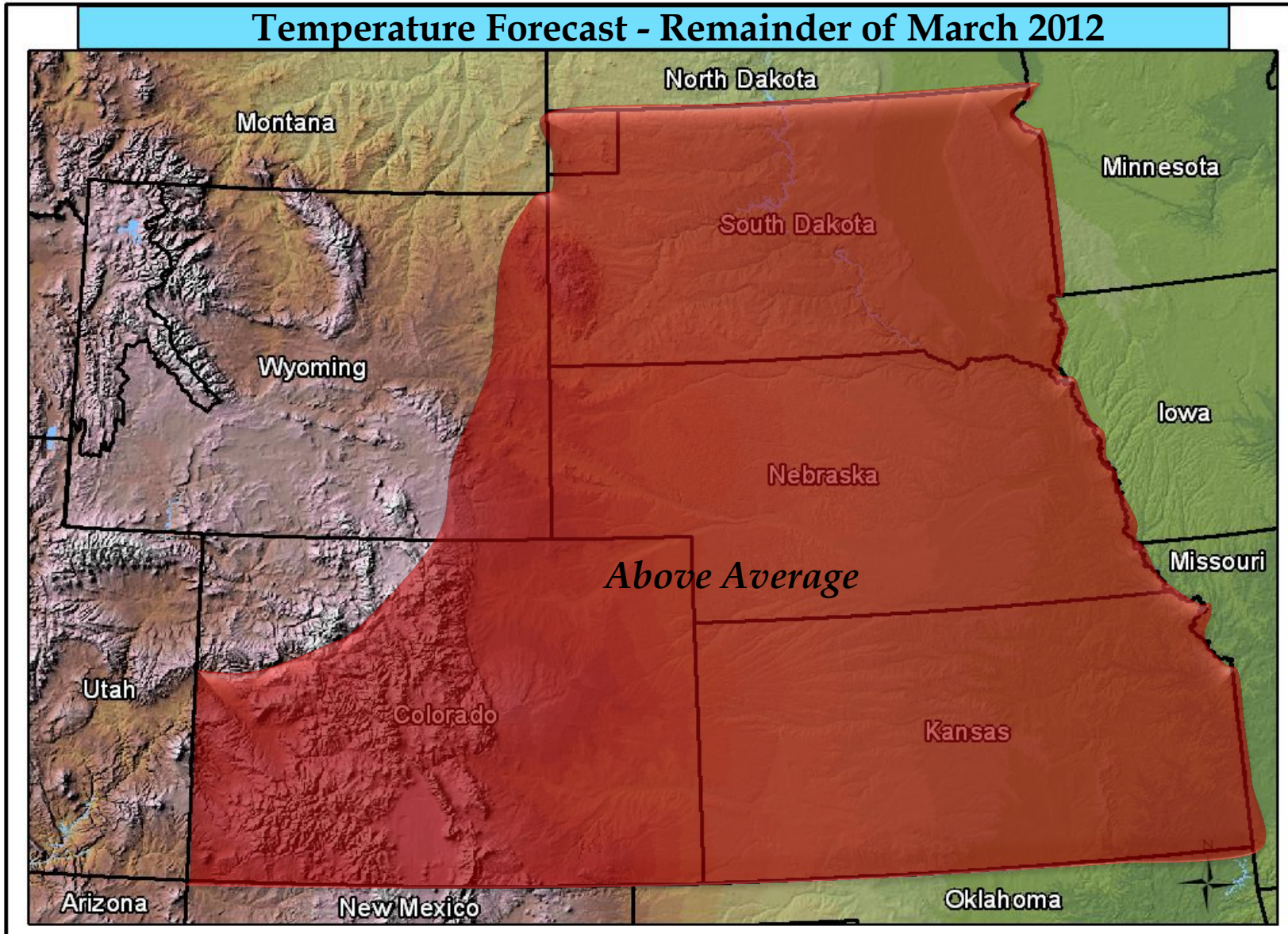
## Precipitation Forecast - Remainder of March 2012





# Seasonal Outlook Update

## Temperature Forecast - Remainder of March 2012

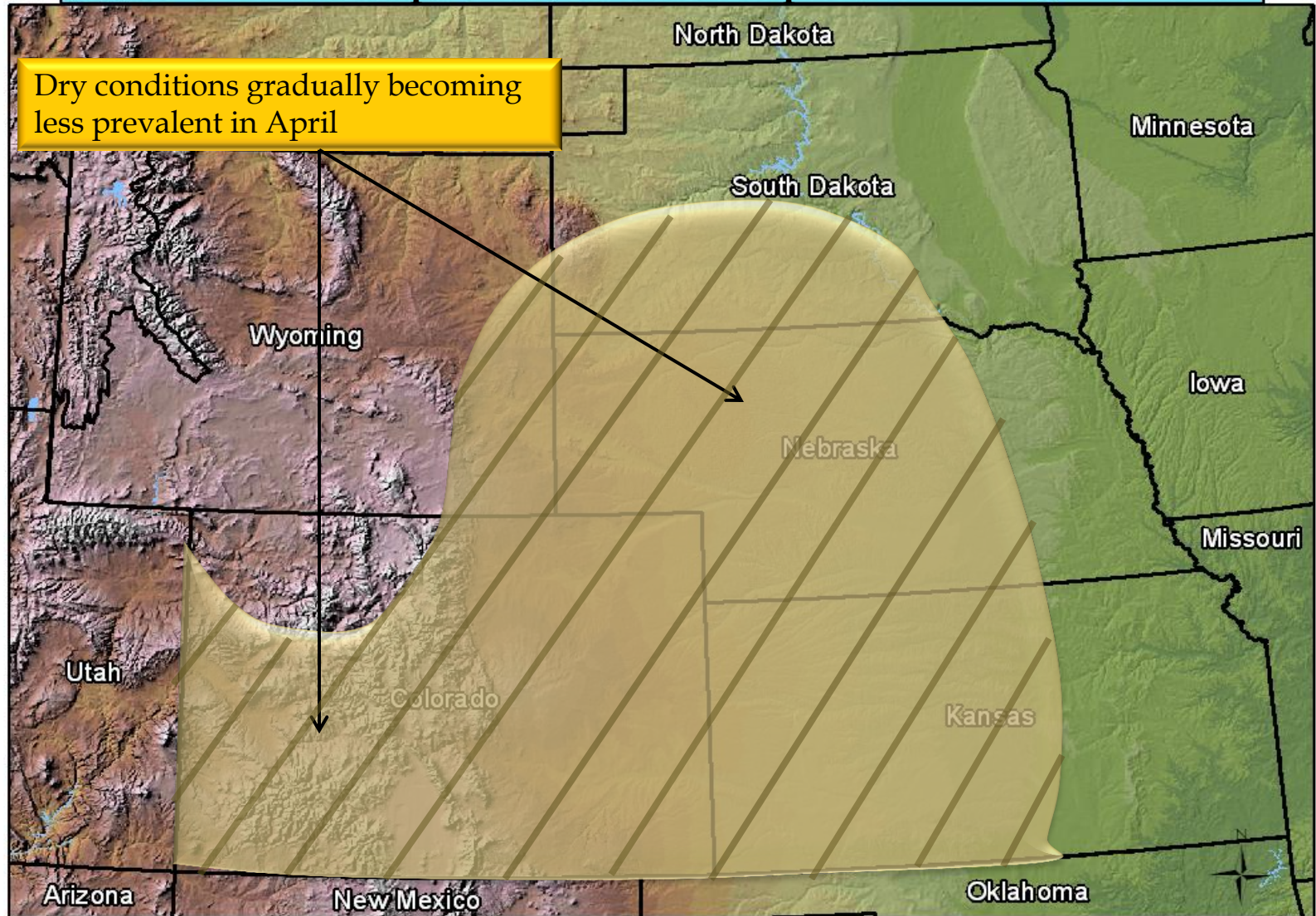




# Seasonal Outlook Update

## Precipitation Forecast - April 2012

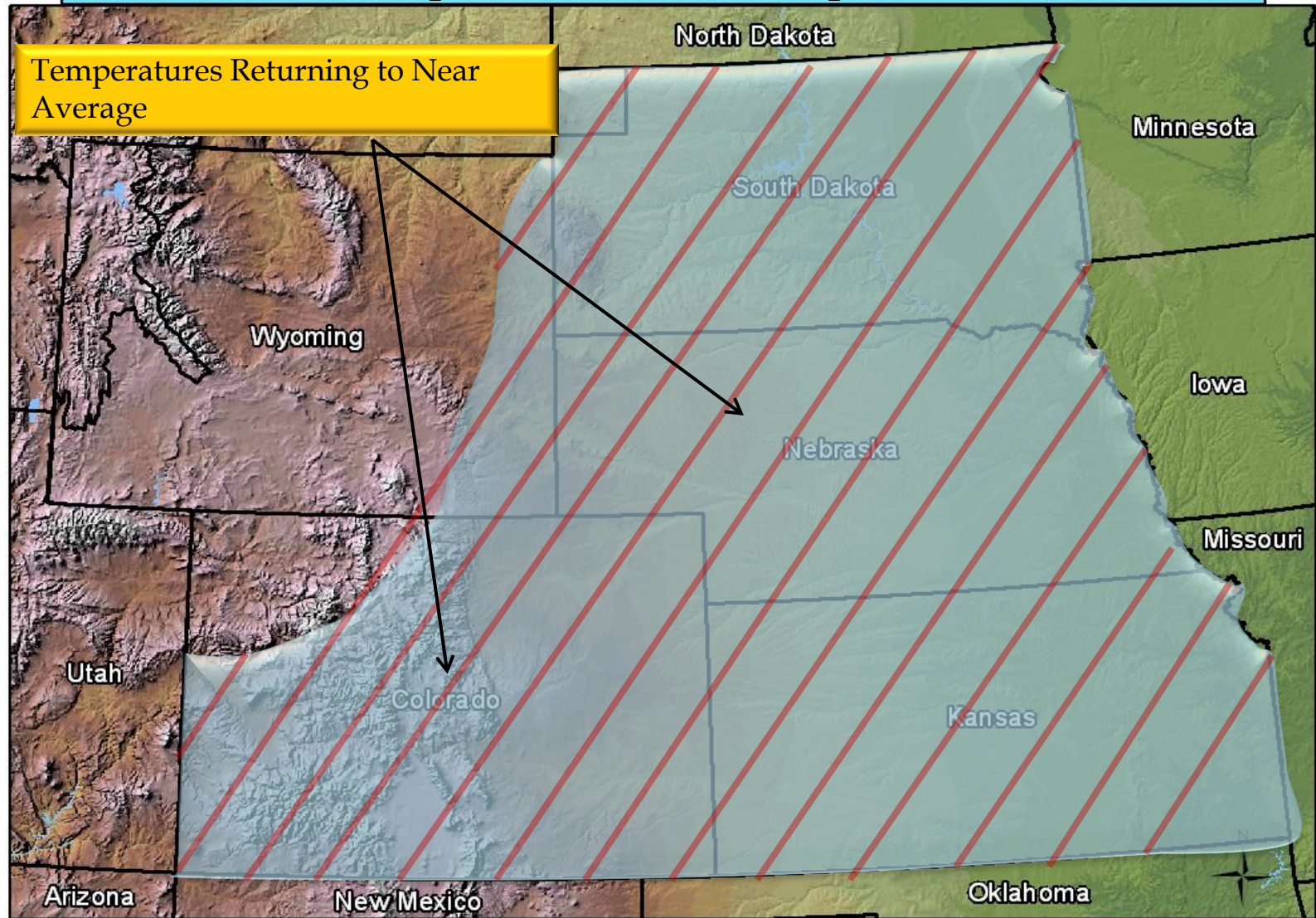
Dry conditions gradually becoming less prevalent in April





# Seasonal Outlook Update

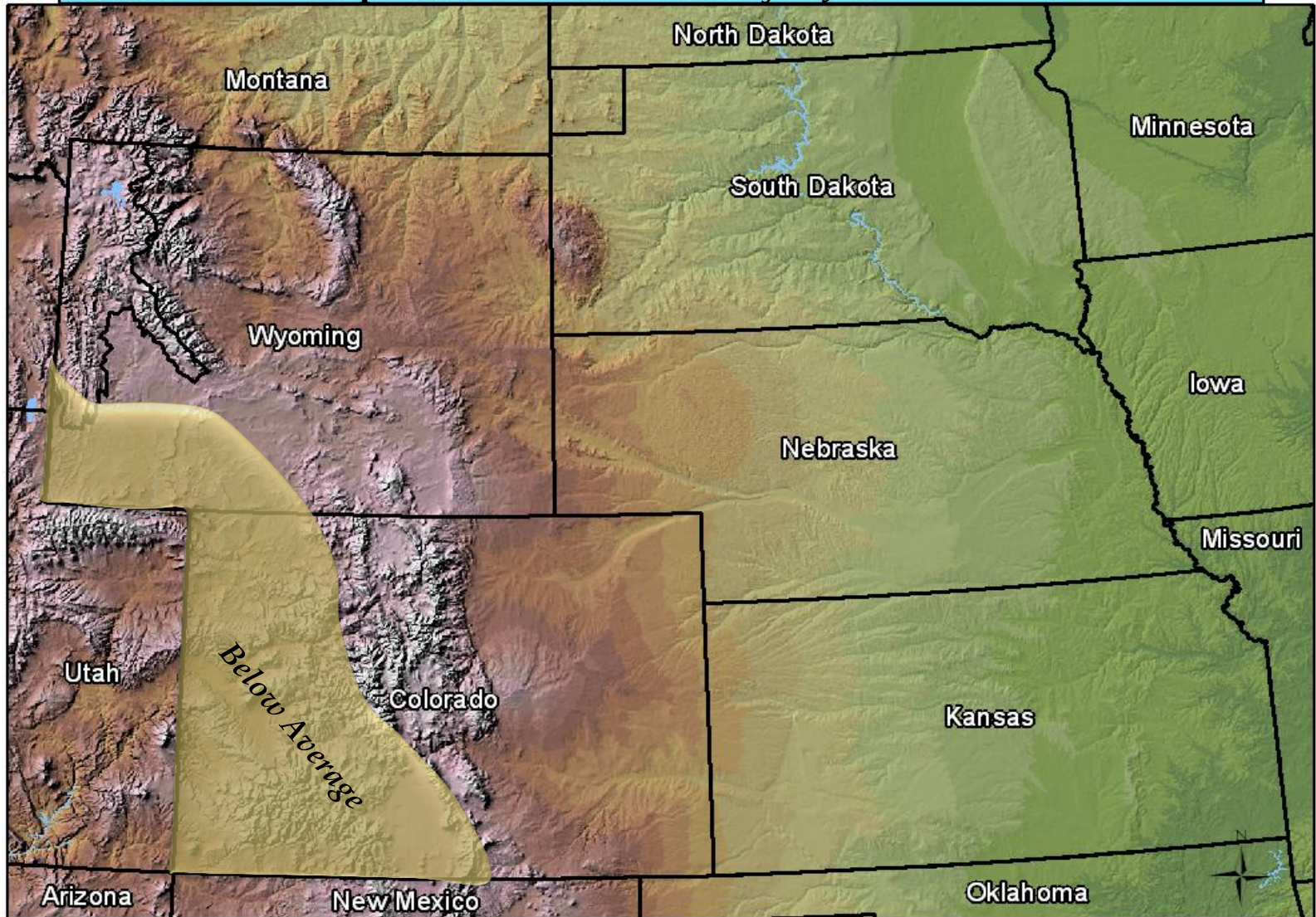
## Temperatures Forecast - April 2012





# Seasonal Outlook Update

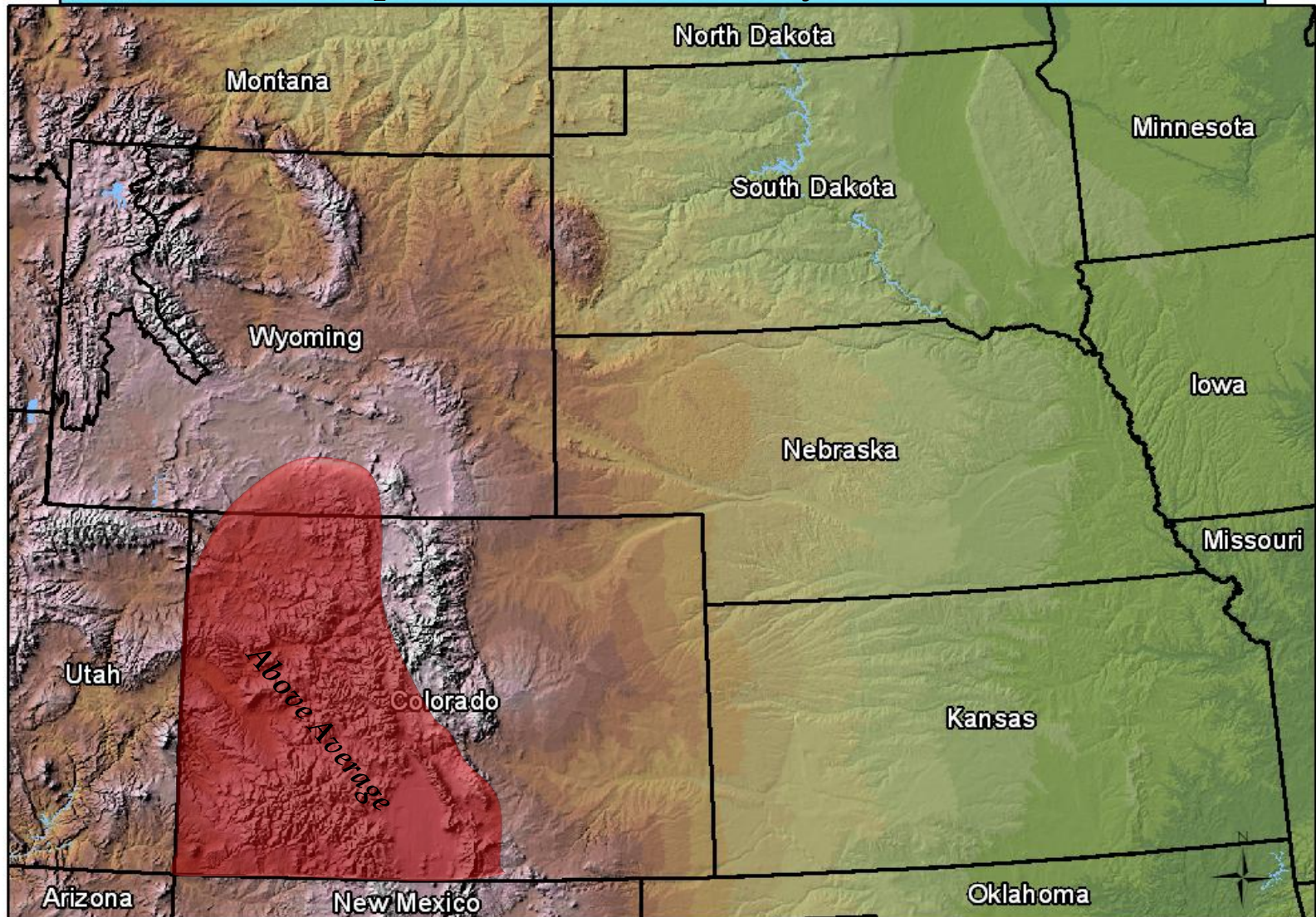
## Precipitation Forecast - May - June 2012





# Seasonal Outlook Update

## Temperatures Forecast - May - June 2012

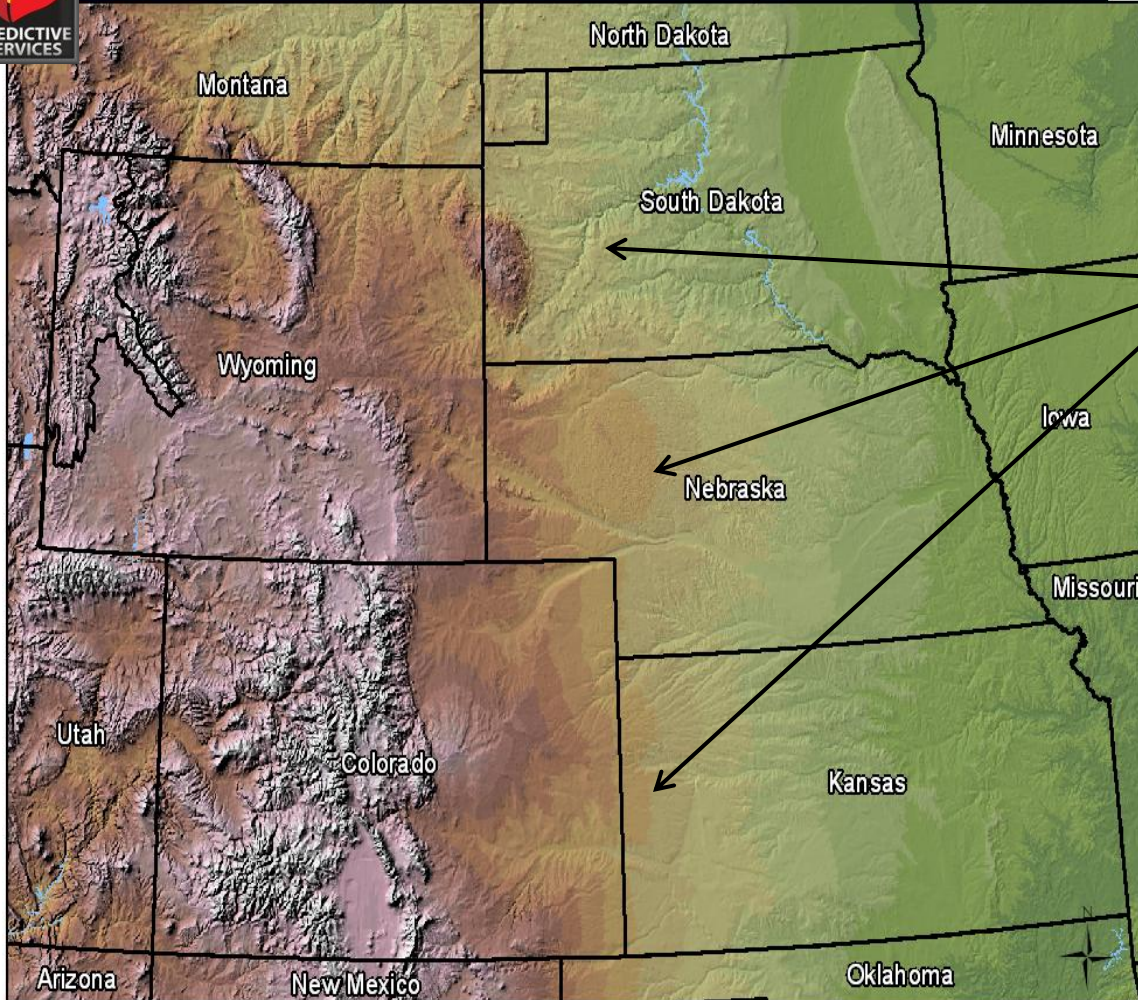




# Seasonal Outlook Update

## Spring 2012 Fire Risk Forecast

### Fire Risk Forecast - Late March - June 2012



La Nina conditions will continue to impact weather patterns for the next several weeks.

Mainly east of the divide, periods of:

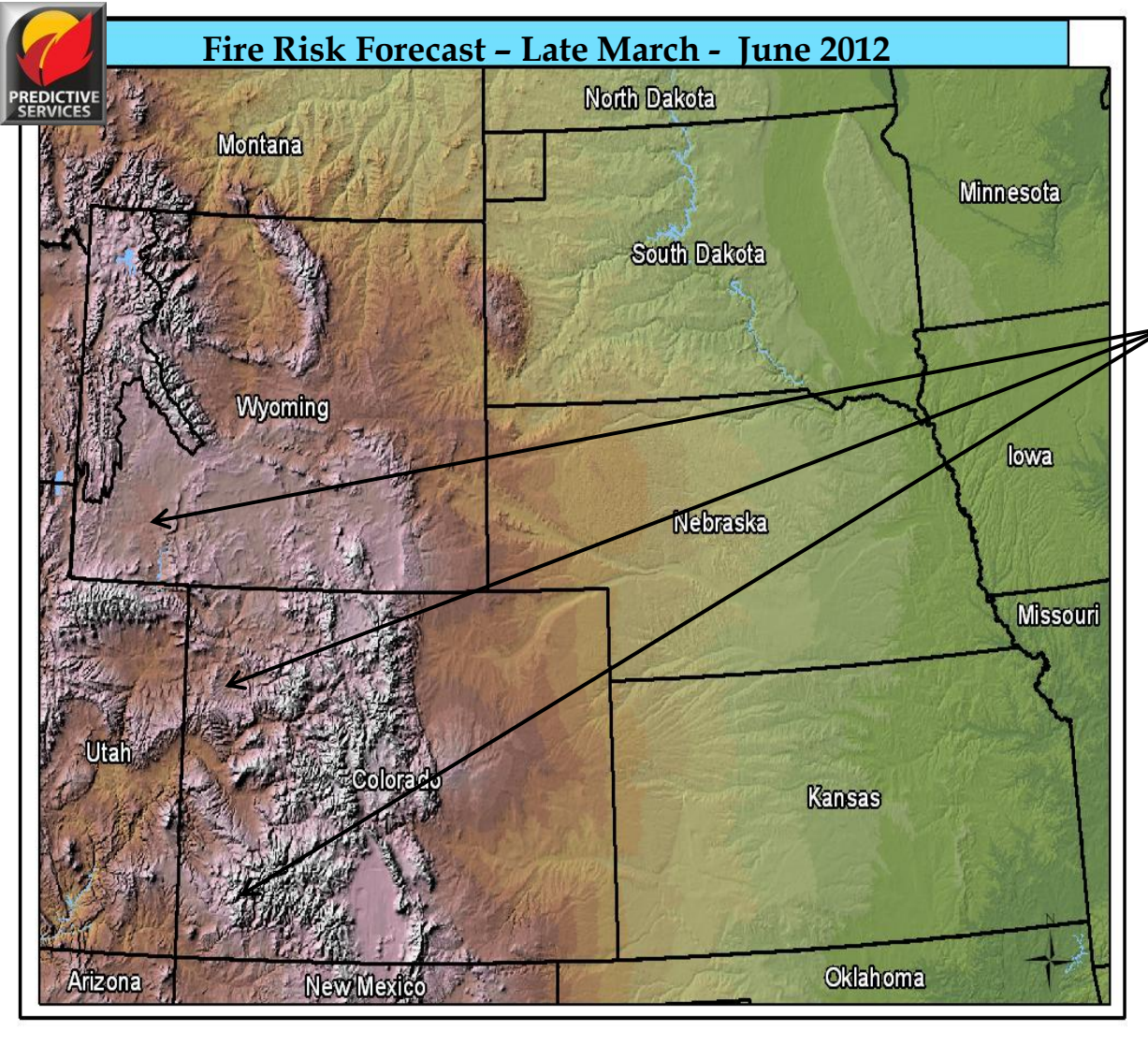
- Above Average Temperatures
- Low Humidity
- Stronger Than Average Wind Events
- Pre-Green Up Fuel Conditions

However, green-up, and a wetter forecast will decrease current spring fire conditions by mid to late April



# Seasonal Outlook Update

## Spring 2012 Fire Risk Forecast



As mentioned in the January outlook, below average snowpack and precipitation deficits raised early concerns about the upcoming 2012 summer fire season across much of western Colorado.

Snowpack and precipitation trends (below average) during the last 60 days has maintained these concerns

Though conditions in April are likely to improve, the May thru June outlooks support drier and warmer than average conditions

The next update to this outlook is scheduled for late April 2012.